

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE (DD-MM-YYYY)

2. REPORT TYPE
Technical Papers

3. DATES COVERED (From - To)

4. TITLE AND SUBTITLE

5a. CONTRACT NUMBER

5b. GRANT NUMBER

5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)

5d. PROJECT NUMBER

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Air Force Research Laboratory (AFMC)
AFRL/PRS
5 Pollux Drive
Edwards AFB CA 93524-7048

8. PERFORMING ORGANIZATION
REPORT

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

Air Force Research Laboratory (AFMC)
AFRL/PRS
5 Pollux Drive
Edwards AFB CA 93524-7048

10. SPONSOR/MONITOR'S
ACRONYM(S)

11. SPONSOR/MONITOR'S
NUMBER(S)

12. DISTRIBUTION / AVAILABILITY STATEMENT

Approved for public release; distribution unlimited.

13. SUPPLEMENTARY NOTES

14. ABSTRACT

20030116 051

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:

a. REPORT

Unclassified

b. ABSTRACT

Unclassified

c. THIS PAGE

Unclassified

17. LIMITATION
OF ABSTRACT

A

18. NUMBER
OF PAGES

19a. NAME OF RESPONSIBLE
PERSON

Leilani Richardson

19b. TELEPHONE NUMBER

(include area code)
(661) 275-5015

MEMORANDUM FOR PR (Contractor/In-House Publication)

FROM: PROI (TI) (STINFO)

19 Apr 2000

SUBJECT: Authorization for Release of Technical Information, Control Number: **AFRL-PR-ED-AB-2000-074**
Suri, Suresh C., Rodgers, Stephen L.; Prakash, G.K. Surya (USC), "Stereoselective Synthesis of
Functionalized *cis*-Hydrindanes from 2-*exo*-Carbomethoxytricyclo-[5.2.1.0^{2,6}]deca-3,8-diene-5-ones"
(Abstract)

Pacifichem 2000

(Statement A)

(Honolulu, HI, 14-19 Dec 00) (Submission Deadline: 28 Apr 2000)

1. This request has been reviewed by the Foreign Disclosure Office for: a.) appropriateness of distribution statement, b.) military/national critical technology, c.) export controls or distribution restrictions, d.) appropriateness for release to a foreign nation, and e.) technical sensitivity and/or economic sensitivity.

Comments: _____

Signature _____ Date _____

2. This request has been reviewed by the Public Affairs Office for: a.) appropriateness for public release and/or b.) possible higher headquarters review.

Comments: _____

Signature _____ Date _____

3. This request has been reviewed by the STINFO for: a.) changes if approved as amended, b.) appropriateness of distribution statement, c.) military/national critical technology, d.) economic sensitivity, e.) parallel review completed if required, and f.) format and completion of meeting clearance form if required

Comments: _____

Signature _____ Date _____

4. This request has been reviewed by PR for: a.) technical accuracy, b.) appropriateness for audience, c.) appropriateness of distribution statement, d.) technical sensitivity and economic sensitivity, e.) military/national critical technology, and f.) data rights and patentability

Comments: _____

APPROVED/APPROVED AS AMENDED/DISAPPROVED

PHILIP A. KESSEL Date
Technical Advisor
Propulsion Science and Advanced Concepts Division

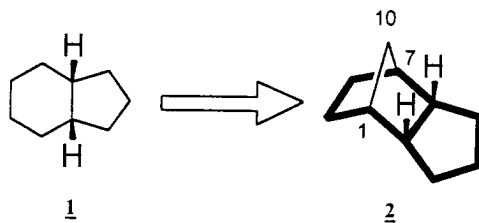
Stereoselective Synthesis of Functionalized *cis*-Hydrindanes from 2-*exo*-Carbomethoxytricyclo[5.2.1.0^{2,6}]deca-3,8-diene-5-ones

Suresh Chander Suri^{*1}, Stephen L. Rodgers¹ and G. K. Surya Prakash²

¹Air Force Research Laboratory/PRSP; 10 East Saturn Blvd., Edwards AFB, CA 93524-7680; ²Department of Chemistry and Loker Hydrocarbon Research Institute; University of Southern California, University Park, Los Angeles, CA 90089-1661

Abstract

Compounds having bicyclo[4.3.0]nonane (*cis*-hydrindane) carbon skeleton (1) or ^{having (1) embedded in} embedding as a core unit in their structure are widely distributed in nature. Several synthetic methodologies for *cis*-hydrindane have been developed while aiming at the synthesis of ^a specific target molecule. The bicyclo[4.3.0]nonane skeleton (**bold lines**) is enclosed within ^a tricyclo[5.2.1.0^{2,6}]decane 2 carbon framework. The extraction of ^{the} *cis*-hydrindane carbon skeleton from tricyclo-



[5.2.1.0^{2,6}]decane carbon framework is very attractive since stereofacial bias inherent in 2 should allow elaboration of the *cis*-hydrindane 1 with high degree of stereoselectivity. The detailed account for the stereoselective synthesis of functionalized *cis*-hydrindanes from 2-*exo*-carbomethoxytricyclo[5.2.1.0^{2,6}]deca-3,8-diene-5-one and its methyl derivatives shall be presented.

"Distribution A: Approved for public release; distribution unlimited"